NOTICE OF 30-DAY PERIOD
FOR PUBLIC COMMENT

Preliminary Findings Regarding a Federal Enforceable State Operating Permit Renewal

for Richmond Casting Company
in Wayne County

FESOP No.: F177-14142-00024

Notice is hereby given that the above-mentioned company, located at 1775 Rich Road, Richmond, Indiana, 47374, has made a renewal application to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP) for a gray and ductile iron foundry.

This proposed FESOP renewal does not contain any new proposed emission units; however, some conditions from previously issued permits/approvals have been corrected or removed. This notice fulfills the public notice procedures to which those conditions are subject.

Notice is hereby given that there will be a period of thirty (30) days from the date of publication of this notice during which any interested person may comment on why this proposed permit should or should not be issued. Appropriate comments should be related to any air quality issues, interpretation of the state and federal rules, calculations made, technical issues, or the effect that the operation of this source would have on any aggrieved individuals. IDEM, OAQ does not have jurisdiction in specifying and implementing requirements for zoning, odor or noise. For such issues, please contact your local officials.

A copy of the application and draft permit is available for examination at the Morrison-Reeves Public Library, 80 North 6th Street, Richmond, Indiana, 46374. A copy of the draft permit is also available for examination at: www.IN.gov/idem/air/permits/. All statements, along with supporting documentation, should be submitted in writing to the IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015. If adverse comments concerning the **air pollution impact** of this draft source are received, together with a request for a public hearing, such a hearing may be held to give further consideration to this application.

Persons not wishing to comment at this time, but wishing to receive notice of future proceedings conducted related to this action, must submit a written request to the OAQ, at the above address. All interested parties of record will receive a notice of the decision on this matter and will then have fifteen (15) days after receipt of the Notice of Decision to file a petition for administrative review. Procedures for filing such a petition will be enclosed with the Notice.

Questions should be directed to Alic Bent, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (9730 575-2555, ext. 3206 or dial (800) 451-6027, press 0 and ask for extension 3-6878.

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

AB/EVP

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

(317) 232-8603
(800) 451-6027
www.state.in.us/idem

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT FESOP RENEWAL OFFICE OF AIR QUALITY

Richmond Casting Company
1775 Rich Road
Richmond, Indiana 47374

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F177-14142-00024	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: Expiration Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a gray and ductile iron foundry.

Authorized Individual:	Joseph E. Garrity, President and CEO
Source Address:	1775 Rich Road, Richmond, Indiana, 47374
Mailing Address:	P.O. Box 1247, Richmond, Indiana, 47374
SIC Code:	3321
Source Location Status:	Wayne
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, Under PSD Rules Minor Source, Section 112, of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) Facilities with particulate matter emissions controlled by baghouse CE-03, exhausting at stack S-5, consisting of:

(1) melting operations at two (2) IT-4 electric induction furnaces with a maximum melting capacity of 5.0 tons of iron per hour, consisting of two (2) electric induction furnaces installed in 2000;

(2) inoculation process for two (2) electric induction furnaces, with a maximum capacity of 5.0 tons of iron per hour;

(3) sand handling system, including the mold making process, with a maximum capacity of 50.0 tons of sand per hour, installed in 2000;

(4) pouring / casting operations, with a maximum capacity of 55.0 tons of casting per hour, installed in 2000;

(5) castings cooling operations, with a maximum capacity of 55.0 tons of casting per hour, installed in 2000;

(6) castings shakeout operations, with a maximum capacity of 55.0 tons of casting per hour, installed in 2000.

(b) shot blasting and grinding operations, with a maximum capacity of 7.15 tons of castings per hour, installed in 2000, with a Torit baghouse for particulate control, identified as CE-02, exhausting through stack S-2;

(c) the scrap and charge handling operation with a maximum capacity of 7.15 tons of iron per hour, uncontrolled and exhausting within the production building;

(d) the core making process with a maximum capacity of 0.6 tons of cores per hour, uncontrolled and exhausting within the production building.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) lift truck propane combustion;

(b) natural gas-fired space heaters and ladle; and

(c) welding operations in maintenance area.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; and

(3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAQ by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or

other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the

deadline specified in writing by IDEM, OAQ any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the

Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air

pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-2 (PSD);

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.14 Pressure Gauge Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps 326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response

step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an

emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the “authorized individual” as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Unless otherwise specified in this permit, any report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(a) Facilities with particulate matter emissions controlled by baghouse CE-03, exhausting at stack S-5, consisting of:

(1) melting operations at two (2) IT-4 electric induction furnaces with a maximum melting capacity of 5.0 tons of iron per hour, consisting of two (2) electric induction furnaces installed in 2000;

(2) inoculation process for two (2) electric induction furnaces, with a maximum capacity of 5.0 tons of iron per hour;

(3) sand handling system, including the mold making process, with a maximum capacity of 50.0 tons of sand per hour, installed in 2000;

(4) pouring / casting operations, with a maximum capacity of 55.0 tons of casting per hour, installed in 2000;

(5) castings cooling operations, with a maximum capacity of 55.0 tons of casting per hour, installed in 2000;

(6) castings shakeout operations, with a maximum capacity of 55.0 tons of casting per hour, installed in 2000.

(b) shot blasting and grinding operations, with a maximum capacity of 7.15 tons of casting per hour, installed in 2000, with a Torit baghouse for particulate control, identified as CE-02, exhausting through stack S-2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2, particulate matter emissions from all the processes controlled by baghouse CE-03 (induction melting, inoculation, sand handling, pouring / castings, castings cooling and castings shakeout processes) and the process controlled by baghouse CE-02 (shotblast) shall be limited to 0.03 gr/ dscf.

D.1.2 Particulate Matter (PM) [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-2, the allowable combined PM emissions for all processes (induction melting, inoculation, sand handling, pouring / castings, castings cooling and castings shakeout), all controlled by baghouse CE-03 are limited to 12.1 lb/hr, which is equivalent to 53.0 tons per year.

(b) Pursuant to 326 IAC 2-2, the allowable PM emissions from the shotblasting process, controlled by baghouse CE-02 are limited to 0.6 lb/hr, which is equivalent to 2.63 tons per year.

Compliance with 1.2 (a) and (b) above, in conjunction with Condition D.2.2 shall limit source wide PM emissions to less than 250 tons per twelve (12) consecutive month period and make the

requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.1.3 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]

(a) Pursuant to 326 IAC 2-8 (FESOP) the PM-10 emissions from baghouse CE-03 controlling the electric induction furnaces, inoculation process, sand handling operation, pouring / casting process, castings cooling process, and the castings shakeout process shall not exceed 14 pounds per hour, which is equivalent to 61.32 tons per year.

(b) Pursuant to 326 IAC 2-8 (FESOP) the PM-10 emissions from baghouse CE-02 controlling the shot blast process, shall not exceed 0.60 pounds per hour, which is equivalent to 2.63 tons per year.

Compliance with these requirements in conjunction with Condition D.2.3 shall limit the source wide potential to emit PM-10 to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and its control devices.

Compliance Determination Requirements

D.1.5 Particulate Matter (PM and PM10) [326 IAC 2-8]

In order to comply with Conditions D.1.1 and D.1.2, the baghouses CE-03 and CE-02 for PM and PM-10 control shall be operated at all times the connected processes are in operation.

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

During the period between 40 and 48 months after issuance of this permit, in order to demonstrate compliance with Conditions D.1.1, D.1.2 and D.1.3 the Permittee shall perform PM and PM-10 testing at baghouse CE-03 during operation of the following equipment under a worst-case concurrent facilities operating scenario, as developed by the Permittee and approved by IDEM, OAQ, Compliance Data Section: the melting process, inoculation process, sand handling operation, pouring / casting process, castings cooling process and castings shakeout process. Testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.7 Visible Emissions Notations

(a) Visible emission notations of the electric induction furnaces, inoculation process, sand handling process, pouring / casting process, castings cooling process, castings shakeout process stack exhaust (i.e., baghouse CE-03, stack S-5), and the shot blast process stack exhaust (i.e., Torit baghouse CE-02, stack S-2), shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the processes (i.e., baghouse CE-03 and Torit baghouse CE-02) at least once per shift when the processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the CE-03 and CE-02 baghouses is outside the normal ranges of 2.0 to 8.0 inches of water and 0.4 to 4.0 inches of water, respectively, or ranges established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instruments Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.9 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the processes when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.1.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the

requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.11 Record Keeping Requirements

(a) To document compliance with Condition D.1.7, the Permittee shall maintain records of visible emission notations of the stack exhaust from CE-03 and CE-02 once per shift.

(b) To document compliance with Condition D.1.8, the Permittee shall maintain the following:

(1) Once per shift records of the differential pressure during normal operation when venting to the atmosphere;

(2) Documentation of the dates vents are redirected, when applicable.

(c) To document compliance with Condition D.1.9, the Permittee shall maintain records of the results of the inspections required under Condition D.1.9.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(c) the scrap and charge handling operation with a maximum capacity of 7.15 tons of iron per hour, uncontrolled and exhausting within the production building;

(d) the core making process with a maximum capacity of 0.6 tons of cores per hour, uncontrolled and exhausting within the production building.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2, the allowable PM emissions for the scrap and charge handling operation and the core making process are each limited to 0.03 gr/dscf.

D.2.2 Particulate Matter (PM) [326 IAC 2-2]

Pursuant to 326 IAC 2-2, the allowable PM emissions for the scrap and charge handling operation and the core making process are limited to 4.29 lb/hr and 2.91 lb/hr, respectively, which is equivalent to 18.79 tons per year and 12.75 tons per year, respectively.

Compliance with this limit, in conjunction with requirements in Condition D.1.2 shall limit source wide PM emissions to less than 250 tons per twelve (12) consecutive month period and make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40CFR 52.21 not applicable.

D.2.3 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8] [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-8 (FESOP) and 326 IAC 2-2 (Prevention of Significant Deterioration) the PM-10 emissions from the scrap and charge handling operation, shall not exceed 2.57 pounds per hour, which is equivalent to 11.26 tons per year.

(b) Pursuant to 326 IAC 2-8 (FESOP) and 326 IAC 2-2 (Prevention of Significant Deterioration) the PM-10 emissions from the core making process, shall not exceed 2.91 pounds per hour, which is equivalent to 12.75 tons per year.

Compliance with these requirements in conjunction with Condition D.1.3 shall limit the source wide potential to emit PM-10 to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 do not apply.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Richmond Casting Company
Source Address: 1775 Rich Road, Richmond, IN 47374
Mailing Address: P.O. Box 1247, Richmond, IN 47374
FESOP No.: 177-14142-00024

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: Richmond Casting Company
Source Address: 1775 Rich Road, Richmond, IN 47374
Mailing Address: P.O. Box 1247, Richmond, IN 47374
FESOP No.: 177-14142-00024

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Richmond Casting Company
Source Address: 1775 Rich Road, Richmond, IN 47374
Mailing Address: P.O. Box 1247, Richmond, IN 47374
FESOP No.: 177-14142-00024

Months: _____ **to** _____ **Year:** _____

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Name:	Richmond Casting Company
Source Location:	1775 Rich Road, Richmond, Indiana 47374
SIC Code:	3321
County:	Wayne
Operation Permit No.:	F177-14142-00024
Permit Reviewer:	Alic Bent /EVP

On January 31, 2002, the Office of Air Quality (OAQ) had a notice published in the Palladium Item, Richmond, Indiana, stating that Richmond Casting Company had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal for the operation of a gray and ductile iron foundry. The notice also stated that OAQ proposed to issue a Federally Enforceable State Operating Permit Renewal for this operation and provided information on how the public could review the proposed FESOP Renewal and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP Renewal should be issued as proposed.

On February 27, 2002, Tom Rarick, Keramida Environmental submitted comments on the proposed FESOP. The summary of the comments and corresponding responses is as follows (bolded language has been added and the language with a line through it has been deleted):

Comment #1

Page 4 A.2 (a)(1) and Page 23 D.1(a)(1) IT-5 should be IT-4.

Response #1

The following change has been made to A.2 (a)(1) and D.1(a)(1).

(1) melting operations at two (2) ~~IT-5~~ **IT-4** electric induction furnaces with a maximum melting capacity of 5.0 tons of iron per hour, consisting of two (2) electric induction furnaces installed in 2000;

Comment #2

Page 4 A.2 (a) (3) and page 23 D.1 (a) (3) rating of sand handling system should be revised from 72.5 to 50.

Response #2

The following change has been made to A.2 (a)(3) and D.1(a)(3).

(3) sand handling system, including the mold making process, with a maximum capacity of ~~72.5~~ **50.0** tons of sand per hour, installed in 2000;

Comment #3

Page 4 A.2 (a) (4) and page 23 D.1 (a) (4) rating of pouring/casting operations should be revised from 64.3 to 55.

Response #3

The following change has been made to A.2 (a)(4) and D.1(a)(4).

(4) pouring / casting operations, with a maximum capacity of ~~64.3~~ **55.0** tons of casting per hour, installed in 2000;

Comment #4

Page 4 A.2 (a) (5) and page 23 D.1 (a) (5) rating of castings cooling operations should be revised from 64.3 to 55.

Response #4

The following change has been made to A.2 (a)(5) and D.1(a)(5).

(5) castings cooling operations, with a maximum capacity of ~~64.3~~ **55.0** tons of casting per hour, installed in 2000;

Comment #5

Page 4 A.2 (a) (6) and page 23 D.1 (a) (6) rating of castings shakeout operations should be revised from 64.3 to 55.

Response #5

The following change has been made to A.2 (a)(6) and D.1(a)(6).

(6) castings shakeout operations, with a maximum capacity of ~~64.3~~ **55.0** tons of casting per hour, installed in 2000;

Comment #6

Page 25 D.1.8 Parametric Monitoring

The pressure drop ranges for the two baghouses CE-03 and CE-02 are specified as 2.0 to 8.0 inches of water. The range for the CE-02 baghouse is lower and should be specified as 0.4 to 4.0 inches of water.

Response #6

Condition D.1.8 Parametric Monitoring has been changed to indicate the correct pressure drop range for the CE-02 baghouse.

D.1.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the processes (i.e., baghouse CE-03 and Torit baghouse CE-02) at least once per shift when the processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the **CE-03 and CE-02** baghouses is outside the normal range**s** of 2.0 to 8.0 inches of water **and 0.4 to 4.0 inches of water, respectively,** or range**s** established during the

latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range**s** is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Comment #7

On page 2 of the technical support Document there is a statement "The following permitted emission units and pollution control devices have been removed from the source during this review process:" This should say "The following permitted emission units and control devices have been removed from service and are inoperable:"

Response #7

The Technical Support Document is not revised for this change. The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment #8

On page 24 D.1.6 there is a discussion of testing requirements. It states:

Within 180 days after issuance of this permit, in order to demonstrate compliance with Conditions D.1.1 and D.1.2 the Permittee shall perform PM and PM-10 testing at baghouse CE-03 during operation of the following equipment under a worst-case concurrent facilities operating scenario, as developed by the Permittee and approved by IDEM, OAQ, Compliance Data Section: the melting process, inoculation process, sand handling operation, pouring / casting process, castings cooling process and castings shakeout process. Testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

We object to the need to do additional stack testing within 180 days after permit issuance. Stack testing was carried out on January 9, 2001 and demonstrated compliance with all applicable regulations. The results of the testing were 1.333 pounds per hour versus a permitted limit of 12.1 pounds per hour. We believe that the scenario tested in January 2001 did represent maximum loading since the PM-10 emissions (including condensibles) were maximized by running the heaviest core job we have.

Response #8

The testing period has been changed as follows:

~~Within 180 days~~ **During the period between 40 and 48 months** after issuance of this permit, in order to demonstrate compliance with Conditions D.1.1 and D.1.2 the Permittee shall perform PM and PM-10 testing at baghouse CE-03 during operation of the following equipment under a worst-case concurrent facilities operating scenario, as developed by the Permittee and approved by IDEM, OAQ, Compliance Data Section: the melting process, inoculation process, sand handling operation, pouring / casting process, castings cooling process and castings shakeout process. Testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with

Section C- Performance Testing.

Upon further review, the OAQ has decided to make the following changes to the FESOP Renewal. Bolded language has been added and the language with a line through it has been deleted.

1. Condition A.5 Prior Permit Superseded [326 IAC 2-1.1-9.5]

Condition A.5 Prior Permit Superseded was added to the permit to implement the intent of the new rule 326 IAC 2-1.1-9.5.

~~A.5 Prior Permit Conditions~~

~~(a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.~~

~~(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.~~

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

2.

Condition C.16	Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]
Condition D.1.7	Visible Emissions Notations
Condition D.1.8	Parametric Monitoring
Condition D.1.10	Broken or Failed Bag Detection

The IDEM, OAQ has changed the name of Condition C.16 to better reflect the contents of the condition.

C.16 Compliance ~~Monitoring~~ **Response** Plan - ~~Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports** [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response

step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

D.1.7 Visible Emissions Notations

(a) Visible emission notations of the electric induction furnaces, inoculation process, sand handling process, pouring / casting process, castings cooling process, castings shakeout process stack exhaust (i.e., baghouse CE-03, stack S-5), and the shot blast process stack exhaust (i.e., Torit baghouse CE-02, stack S-2), shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance ~~Monitoring~~ **Response** Plan - ~~Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports**, shall be considered a violation of this permit.

D.1.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the processes (i.e., baghouse CE-03 and Torit baghouse CE-02) at least once per shift when the processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouses is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance ~~Monitoring~~ **Response** Plan - ~~Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports**. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance ~~Monitoring~~ **Response** Plan - ~~Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports**, shall be considered a violation of this permit.

The instruments used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instruments Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance ~~Monitoring~~ **Response** Plan - ~~Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports**, shall be considered a violation of this permit.

3. Condition D.1.6 Testing Requirements

The IDEM, OAQ has made the following changes to Condition D.1.6 to include testing for D.1.3.

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, in order to demonstrate compliance with Conditions D.1.1**,** ~~and~~ D.1.2 **and D.1.3** the Permittee shall perform PM and PM-10 testing at baghouse CE-03 during operation of the following equipment under a worst-case concurrent facilities operating scenario, as developed by the Permittee and approved by IDEM, OAQ, Compliance Data Section: the melting process, inoculation process, sand handling operation, pouring / casting process, castings cooling process and castings shakeout process. Testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name: Richmond Casting Company
Source Location: 1775 Rich Road, Richmond, Indiana 47374
County: Wayne
SIC Code: 3321
Operation Permit No.: F 177-14142-00024
Permit Reviewer: Alic Bent/EVP

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Richmond Casting Company relating to the operation of a gray and ductile iron foundry. Richmond Casting Company was issued FESOP 177-5429-00024 on December 6, 1996.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) Facilities with particulate matter emissions controlled by baghouse CE-03, exhausting at stack S-5, consisting of:

(1) melting operations at two (2) IT-5 electric induction furnaces with a maximum melting capacity of 5.0 tons of iron per hour, consisting of two (2) electric induction furnaces installed in 2000;

(2) inoculation process for two (2) electric induction furnaces, with a maximum capacity of 5.0 tons of iron per hour;

(3) sand handling system, including the mold making process, with a maximum capacity of 72.5 tons of sand per hour, installed in 2000;

(4) pouring / casting operations, with a maximum capacity of 64.3 tons of casting per hour, installed in 2000;

(5) castings cooling operations, with a maximum capacity of 64.3 tons of casting per hour, installed in 2000;

(6) castings shakeout operations, with a maximum capacity of 64.3 tons of casting per hour, installed in 2000;

(b) shot blasting and grinding operations, with a maximum capacity of 7.15 tons of casting per hour, installed in 2000, with a Torit baghouse for particulate control, identified as CE-02, exhausting through stack S-2;

(c) the scrap and charge handling operation with a maximum capacity of 7.15 tons of iron per hour, uncontrolled and exhausting within the production building;

(d) the core making process with a maximum capacity of 0.6 tons of cores per hour, uncontrolled and exhausting within the production building.

The following permitted emission units and pollution control devices have been removed from the source during this review process:

(a) two (2) electric induction furnaces with a maximum melting capacity of 2.25 tons of iron per hour, uncontrolled and exhausting through vents V3 and V4;

(b) one (1) sand handling system, including elevators, screen, shakeout, storage bins, conveyors and muller with a maximum capacity of 22.5 tons of sand per hour, with particulate emissions controlled by a Wheelabrator-Frye baghouse (CE-01), exhausting through stack S-1;

(c) one (1) pouring and cooling operation, with a maximum capacity of 2.25 tons per hour, uncontrolled; and

(d) mold machines, with a maximum capacity of 120 molds per hour and 22.5 tons of sand per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving New Source Review Approval

There are no new emission units at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) lift truck propane combustion;

(b) natural gas-fired space heaters and ladle; and

(c) welding operations in maintenance area (This activity has been added to the source during the 5 year permit term under FESOP F177-5429-00024, issued on December 6, 1996, and has been included under this FESOP approval).

Existing Approvals

(a) FESOP 177-5429-00024, issued on December 6, 1996; and expires on December 6, 2001

(b) First Administrative Amendment 177-10629, issued on March 8, 1999

(c) Second Administrative Amendment 177-11878, issued on March 7, 2000

It was stated in the original FESOP F177-5429-00024, issued on December 6,1996, that “sections D.1 through D.10 shall apply until the source finishes construction of the expansion project and receives an administrative amendment from OAQ”, which allows the source to begin operation under the new set of operating conditions. The source completed this expansion in February of 2000 and received an Administrative Amendment from OAQ for the expanded operation to be operated under Sections D.11 through D.20. Therefore, Sections D.1 through D.10 in the original FESOP are no longer applicable.

All other conditions from previous approvals were incorporated into this FESOP. However, per the request of the source in the FESOP renewal application, original conditions in Sections D.11 through D.20 have been re-organized such that only two sections, D.1 and D.2, appear in this FESOP renewal. These re-organized Sections D.1 and D.2 correspond to controlled and uncontrolled emissions generating equipment / activities at this source. Since this re-organization does not affect source applicability with respect to 326 IAC 2-8, nor does it trigger any new requirements or affect prior determinations on rule applicability, the changes are made without replication herein.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on March 22, 2001.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 to 6).

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	1099.53
PM-10	529.48
SO_2	1.47
VOC	42.18
CO	0.02
NO_x	1.63

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Unrestricted Potential Emissions (tons/yr)
Acrolein	< 10
Benzene	< 10
Formaldehyde	< 10
Hydrogen Cyanide	< 10
Xylenes	< 10
Naphthalene	< 10
Phenol	< 10
Toluene	< 10
C2-C5 Aldehydes	< 10
Aromatic Amines	< 10
Manganese	< 10
TOTAL	< 25

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM10 is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Potential to Emit After Issuance

The source, issued a FESOP on December 6, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. The source has replaced the equipment listed in Sections D.1 through D.10 in the original FESOP F177-5429-00024; issued on December 6, 1996 with equipment listed in Sections D.11 through D.20 as allowed by the original FESOP. The emissions for the replaced units are reflected in the following table.

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
units controlled by baghouse CE-03*	53.0	61.32	0.63	42.27	0.00	0.31	9.50
shot blast	2.63	2.63	0.00	0.00	0.00	0.00	0.00
scrap & charge handling	18.79	11.26	0.00	0.00	0.00	0.00	0.00

core making	12.75	12.75	6.99	0.00	0.00	10.93	0.00
natural gas (as an insignificant activity)	0.10	0.20	0.00	0.20	2.60	3.10	0.00
Total PTE After Issuance	87.27	88.16	7.62	42.47	2.60	14.34	9.50

* CE-03 controls the induction melt, inoculation, sand handling, pouring/casting, casting/cooling, and casting shakeout systems.

County Attainment Status

The source is located in Wayne County.

Pollutant	Status
PM-10	unclassifiable
SO_2	maintenance
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Wayne County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

There are no new federal rules applicable to this source during this FESOP renewal review process. The applicability determination in the following is based on that conducted for original FESOP F177-5429-00024, issued on December 6, 1996.

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 61, and 326 IAC 20 and 40 CFR 63) applicable to this source.

State Rule Applicability - Entire Source

There are no new state rules applicable to this source during this FESOP renewal review process. The applicability determination that follows is based on that conducted for original FESOP F177-5429-00024, issued on December 6, 1996.

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is not a major source because, even though it is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, potential to emit of PM is limited to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 do not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Wayne County which is not one of the specifically regulated counties, nor does the source have one hundred (100) tons per year or more of any criteria pollutant (including fugitive emissions). Therefore, the requirements of 326 IAC 2-6 still do not apply to this source.

326 IAC 2-8-4 (FESOP)

(a) Pursuant to 326 IAC 2-8 (FESOP) the PM-10 emissions from the baghouse identified as

CE-03 controlling the electric induction furnaces, inoculation process, sand handling operation, pouring / casting process, castings cooling process, and the castings shakeout process shall not exceed 14 pounds per hour, which is equivalent to 61.32 tons per year.

(b) The PM-10 emissions from the baghouse identified as CE-02 controlling the shot blast operation, shall not exceed 0.60 pounds per hour, which is equivalent to 2.63 tons per year.

(c) The PM-10 emissions from the scrap and charge handling process, shall not exceed 2.57 pounds per hour, which is equivalent to 11.26 tons per year.

(d) The PM-10 emissions from the core making process, shall not exceed 2.91 pounds per hour, which is equivalent to 12.75 tons per year.

Compliance with these limitations shall make the requirements of 326 IAC 2-7 (Part 70) not applicable to this source.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

State Rule Applicability - Individual Facilities

326 IAC 6-1-2 (Particulate Matter Emissions Limitations)

Pursuant to 326 IAC 6-1-1 (Applicability) specifically listed sources or facilities, or sources or facilities not specifically listed but located in a listed county and having either a potential to emit (PTE) 100 tons per year (tpy) or more or actual emissions of 10 tpy or more of PM, are subject to the rule requirements.

The source is located in Wayne County, a specifically listed county and the source has actual PM emissions greater than 10 tpy. The source and its facilities are not specifically listed at 326 IAC 6-1-14 and, therefore, the requirements of 326 IAC 6-1-2(e) (Grey Iron Foundries) and 326 IAC 6-1-2(a) (General Sources) are applicable to this source. Pursuant to this rule, particulate matter emissions from this source shall be limited to 0.03 gr/ dscf for the shotblast, inoculation, sand handling, pouring / castings, castings cooling and castings shakeout processes and 0.07 gr/dscf for the melting process. The melting process shall also be limited to the more stringent limit of 0.03 gr/dscf, since all the processes listed above are controlled by the baghouse CE-03 and are exhausting to the same stack S-5, except for the shotblast operation which is controlled by baghouse CE-02 and exhausting to stack S-2.

The allowable PM emissions for all processes controlled by baghouse CE-03 (melting, inoculation,

sand handling, pouring / castings, castings cooling and castings shakeout) are 12.4 lb/hr (based on the 326 IAC 6-1-2 limit of 0.03 gr/dscf and a maximum air flow rate of 51,000 acfm), and the allowable PM emissions for the shotblast process controlled by baghouse CE-02 are 3.1 lb/hr (based on the 326 IAC 6-1-2 limit of 0.03 gr/dscf and a maximum air flow rate of 12,500 acfm).

The allowable PM emissions for the two (2) processes, Scrap and Charge Handling and Core Making are 4.29 lb/hr and 2.91lb/hr, respectively. The PM emission limits of 4.29 lb/hr for Scrap and Charge Handling, 2.91 lb/hr for Core Making, and the PM limits in Condition D.1.1 shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

The source requested the combined allowable PM emissions controlled by baghouse CE-03 be limited to 12.1 lb/hr and the allowable PM emissions for the shotblasting process controlled by CE-02 to be limited to 0.6 lb/hr. The source shall comply with the limits by operating the baghouses CE-03 and CE-02 for PM control at all times when the listed processes are operating.

326 IAC 6-3-2 (Process Operations)

The melting process, inoculation process, sand handling process, pouring / casting process, castings cooling process, castings shakeout process, shotblast process, scrap and charge handling process and core making process are not subject to 326 IAC 6-3-2 (Process Operations), because the allowable emissions for 326 IAC 6-3-2 are less stringent than the allowable emissions for 326 IAC 6-1-2. Pursuant to 326 IAC 6-3-1(b) (1), these processes are not subject to 326 IAC 6-3-2.

326 IAC 11-1-2 (Emission Limitations For Existing Foundries)

This source is not subject to 326 IAC 11-1-2 (Emission Limitations For Existing Foundries). This rule establishes limitations for particulate matter from all foundries in operation on or before December 6, 1968. This facility began operation after December 6, 1968, therefore, pursuant to 326 IAC 6-3-2 is not subject to 326 IAC 11-1-2.

Testing Requirements

There are no existing testing requirements from original FESOP 177-5429-00024. However, a new testing requirement for baghouse CE-03 was incorporated into this FESOP.

Justification for new testing requirement:

The total uncontrolled PM and PM-10 emissions from those facilities connected to baghouse CE-03 account for about 51% and 85% of the source wide potential to emit for these pollutants, respectively. Since the control device has not been tested, and its proper operation is required for the source to respectively comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP), the source shall be required to conduct the testing outlined in Condition D.1.5.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in

conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

All compliance requirements from previous approvals were incorporated into this FESOP.

1. The baghouse CE-03, which controls the melting, pouring, inoculation, castings shakeout and sand handling operations, and the Torit baghouse CE-02, which controls the shot blasting and grinding operations, have applicable compliance monitoring conditions as specified below:

   (a) Visible emission notations of the electric induction furnaces, inoculation process, sand handling process, pouring / casting process, castings cooling process, castings shakeout process stack exhaust (i.e., baghouse CE-03, stack S-5) and the shot blast process stack exhaust (i.e., Torit baghouse CE-02, stack S-2) shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

   (b) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the processes (i.e., baghouse CE-03 and Torit baghouse CE-02), at least once per shift when the processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouses is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) An inspection shall be performed each calender quarter of all bags controlling the electric induction furnaces, inoculation process, sand handling process, pouring / casting process, castings cooling process, castings shakeout process (i.e., baghouse CE-03) and the shot blast process (i.e., Torit baghouse CE-02) when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

These monitoring conditions are necessary because baghouses CE-03 and CE-02 must operate properly to ensure compliance with 326 IAC 6-1-2 (Particulate Matter Emissions Limitations) and 326 IAC 2-8 (FESOP).

Conclusion

The renewed operation of this gray and ductile iron foundry shall be subject to the conditions of the attached proposed FESOP Renewal No.: F177-14142-00024.

Appendix A: Grey Iron Foundry

Company Name: Richmond Casting Company
Address City IN Zip: 1775 Rich Road, Richmond, IN 47374
FESOP Renewal: 177-14142
Plt ID: 177-00024
Reviewer: Alic Bent
Date: June 25, 2001

Process	Rate (tons iron/hr)	Pollutant	Ef lbs/ton	Ebc tons/yr	Eac tons/yr	Type of Control	% Eff
Induction Melt	5.00	**PM ***	0.9	19.71	1.38	baghouse	0.93
		PM10 *	0.86	18.83	1.32	CE-03	0.93
		SOx	0.00	0.00	0.00	none	
		NOx	0.00	0.00	0.00	none	
		VOC	0.00	0.00	0.00	none	
		CO	0.00	0.00	0.00	none	
		LEAD	0.04	0.88	1.25	none	

The following calculations demonstrate compliance with 326 IAC 6-3 (Process Operations) for process weight rates less than or equal to 30 tons per hour.

P = 5.0 tons per hour

limit = 4.1 * (5.0 ^ 0.67) = 12.05 lb/hr or
52.79 ton/yr **WILL COMPLY**

Process	Rate (tons iron/hr)	Pollutant	Ef lbs/ton	Ebc tons/yr	Eac tons/yr	Type of Control	% Eff
Inoculation	5.00	**PM ***	4	87.60	6.13	baghouse	0.93
		PM10 *	3.2	70.08	4.91	CE-03	0.93
		SOx	0.00	0.00	0.00	none	
		NOx	0.00	0.00	0.00	none	
		VOC	0.01	0.22	0.31	none	
		CO	0.00	0.00	0.00	none	
		LEAD	0.04	0.88	1.25	none	

The following calculations demonstrate compliance with 326 IAC 6-3 (Process Operations) for process weight rates less than or equal to 30 tons per hour.

P = 5.0 tons per hour

limit = 4.1 * (5.0 ^ 0.67) = 12.05 lb/hr or
52.79 ton/yr **WILL COMPLY**

Process	Rate (tons sand/hr)	Pollutant	Ef lbs/ton	Ebc tons/yr	Eac tons/yr	Type of Control	% Eff
Sand System	72.5	**PM ***	0.65	206.41	6.19	baghouse	0.97
		PM10 *	0.54	171.48	5.14	CE-03	0.97
		SOx	0.00	0.00	0.00	none	
		NOx	0.00	0.00	0.00	none	
		VOC	0.00	0.00	0.00	none	
		CO	0.00	0.00	0.00	none	
		LEAD	0.00	0.00	0.00	none	

The following calculations demonstrate compliance with 326 IAC 6-3 (Process Operations) for process weight rates greater than 30 tons per hour.

P = 72.5 tons per hour

limit = 55 * (72.5 ^ 0.11) - 40 = 48.10 lb/hr or 210.70 ton/yr **WILL COMPLY**

Process	Rate (tons iron/hr)	Pollutant	Ef lbs/ton	Ebc tons/yr	Eac tons/yr	Type of Control	% Eff
Pouring/Casting	7.15	**PM ***	2.8	87.69	6.14	baghouse	0.93
		PM10 *	2.8	87.69	6.14	CE-03	0.93
		SOx	0.02	0.63	0.63	none	
		NOx	0.01	0.31	0.31	none	
		VOC	0.14	4.38	4.38	none	
		CO	0.00	0.00	0.00	none	
		LEAD	0.00	0.00	0.00	none	

The following calculations demonstrate compliance with 326 IAC 6-3 (Process Operations) for process weight rates greater than 30 tons per hour.

P = 64.3 tons per hour

limit = 55 * (64.3 ^ 0.11) - 40 = 46.95 lb/hr or 205.64 ton/yr **WILL COMPLY**

Process	Rate (tons iron/hr)	Pollutant	Ef lbs/ton	Ebc tons/yr	Eac tons/yr	Type of Control	% Eff
Casting/Cooling	7.15	**PM ***	1.4	43.84	3.07	baghouse	0.93
		PM10 *	1.4	43.84	3.07	CE-03	0.93
		SOx	0.00	0.00	0.00	none	
		NOx	0.00	0.00	0.00	none	
		VOC	0.00	0.00	0.00	none	
		CO	0.00	0.00	0.00	none	
		LEAD	0.04	1.25	1.25	none	

The following calculations demonstrate compliance with 326 IAC 6-3 (Process Operations) for process weight rates greater than 30 tons per hour.

P = 64.3 tons per hour

limit = 55 * (64.3 ^ 0.11) - 40 = 46.95 lb/hr or 205.64 ton/yr **WILL COMPLY**

Process	Rate (tons iron/hr)	Pollutant	Ef lbs/ton	Ebc tons/yr	Eac tons/yr	Type of Control	% Eff
Casting Shakeout	7.15	**PM ***	3.2	100.21	7.02	baghouse	0.93
		PM10 *	2.24	70.15	4.91	CE-03	0.93
		SOx	0.00	0.00	0.00	none	
		NOx	0.00	0.00	0.00	none	
		VOC	1.20	37.58	37.58	none	
		CO	0.00	0.00	0.00	none	
		LEAD	0.00	0.00	0.00	none	

The following calculations demonstrate compliance with 326 IAC 6-3 (Process Operations) for process weight rates greater than 30 tons per hour.

P = 64.3 tons per hour

limit = 55 * (64.3 ^ 0.11) - 40 = 46.95 lb/hr or 205.64 ton/yr **WILL COMPLY**

Process	Rate (tons iron/hr)	Pollutant	Ef lbs/ton	Ebc tons/yr	Eac tons/yr	Type of Control	% Eff
Shotblast	7.15	**PM ***	17	532.39	37.27	baghouse	0.98
		PM10 *	1.7	53.24	3.73	CE-02	0.98
		SOx	0.00	0.00			
		NOx	0.00	0.00			
		VOC	0.00	0.00			
		CO	0.00	0.00			
		LEAD	0.04	0.00			

The following calculations demonstrate compliance with 326 IAC 6-3 (Process Operations) for process weight rates less than or equal to 30 tons per hour.

P = 7.2 tons per hour

limit = 4.1 * (7.2 ^ 0.67) = 15.32 lb/hr or 67.09 ton/yr **WILL COMPLY**

Process	Rate (tons iron/hr)	Pollutant	Ef lbs/ton	Ebc tons/yr	Eac tons/yr	Type of Control
Scrap & Charge Handling	7.15	**PM ***	0.6	18.79	18.79	none
		PM10 *	0.36	11.27	11.27	none
		SOx	0.00	0.00	0.00	none
		NOx	0.00	0.00	0.00	none
		VOC	0.00	0.00	0.00	none
		CO	0.00	0.00	0.00	none
		LEAD	0.00	0.00	0.00	none

The following calculations demonstrate compliance with 326 IAC 6-3 (Process Operations) for process weight rates less than or equal to 30 tons per hour.

P = 7.2 tons per hour

limit = 4.1 * (7.2 ^ 0.67) = 15.32 lb/hr or

67.09 ton/yr **WILL COMPLY**

Process	Rate (tons iron/hr)	Pollutant	Ef lbs/ton	Ebc tons/yr	Eac tons/yr	Type of Control
Core Making	0.6	**PM ***	1.1	2.89	2.89	none
		PM10 *	1.1	2.89	2.89	none
		SOx	0.32	0.84	0.84	none
		NOx	0.50	1.31	1.31	none
		VOC	0.00	0.00	0.00	none
		CO	0.00	0.00	0.00	none
		LEAD	0.00	0.00	0.00	none

The following calculations demonstrate compliance with 326 IAC 6-3 (Process Operations) for process weight rates less than or equal to 30 tons per hour.

P = 5.0 tons per hour

limit = 4.1 * (5.0 ^ 0.67) = 12.04 lb/hr or

52.72 ton/yr **WILL COMPLY**

Total	Ebc	Eac
PM *	1099.53	88.87
PM10 *	529.48	43.37
SOx	1.47	1.47
NOx	1.63	1.62
VOC	42.18	42.27
CO	0.02	0.02
LEAD	3.00	3.75

Methodology

Ebc=Uncontrolled Potential Emissions = Rate (lb/hr) * Emission Factor (lb/ton) * 8760 (hrs/yr) * (1 ton/2000 lbs)

Eac=Controlled Emissions = Rate (lb/hr) * Emission Factor (lb/ton) * (1 - Control Efficiency) * 8760 (hrs/yr) * (1 ton/2000 lbs)

Emission Factors were taken from page 106, FIRE Version 5.0 (August 1995)

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Boiler

Company Name: **Richmond Casting Company**
Address City IN Zip: **1775 Rich Road, Richmond, IN 47374**
FESOP Renewal: **177-14142**
Plt ID: **177-00024**
Reviewer: **AB/EVP**
Date: **June 25, 2001**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
7.2	62.6

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.2	0.0	3.1	0.2	2.6

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: **Richmond Casting Company**
Address City IN Zip: **1775 Rich Road, Richmond, IN 47374**
FESOP Renewal: **177-14142**
Plt ID: **177-00024**
Reviewer: **AB/EVP**
Date: **June 25, 2001**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	6.577E-05	3.758E-05	2.349E-03	5.637E-02	1.065E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.566E-05	3.445E-05	4.384E-05	1.190E-05	6.577E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.